

FIG.1

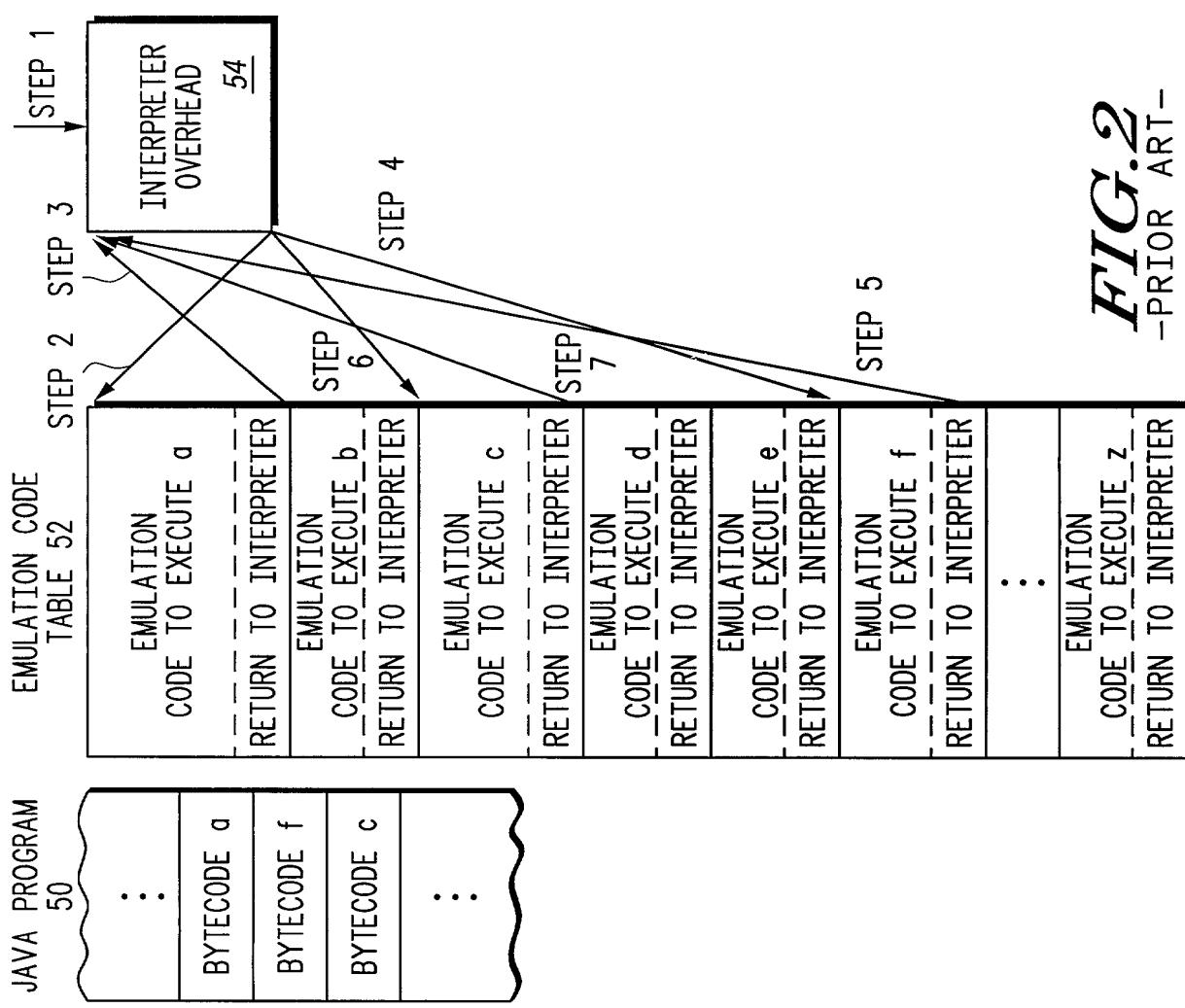
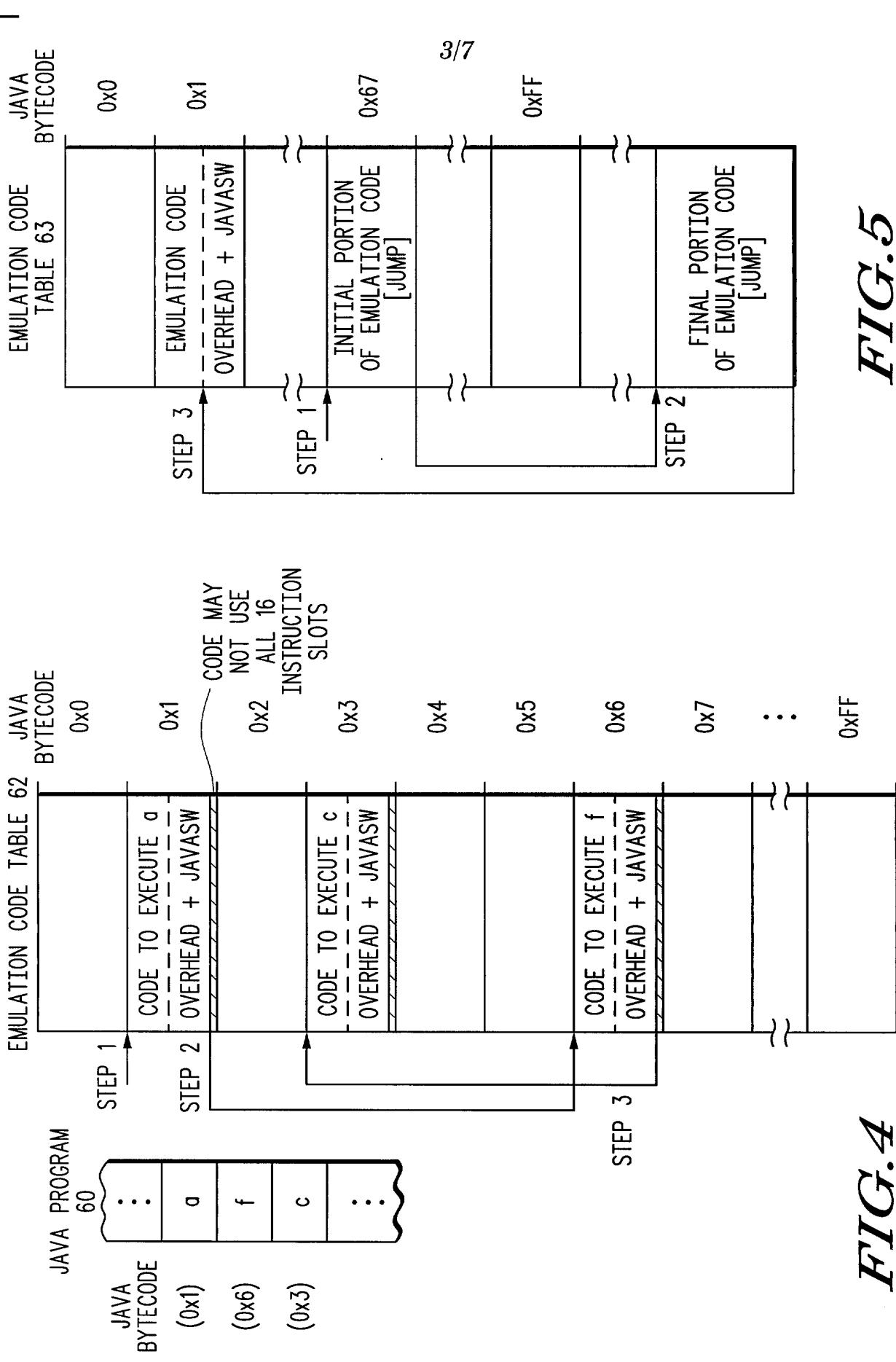
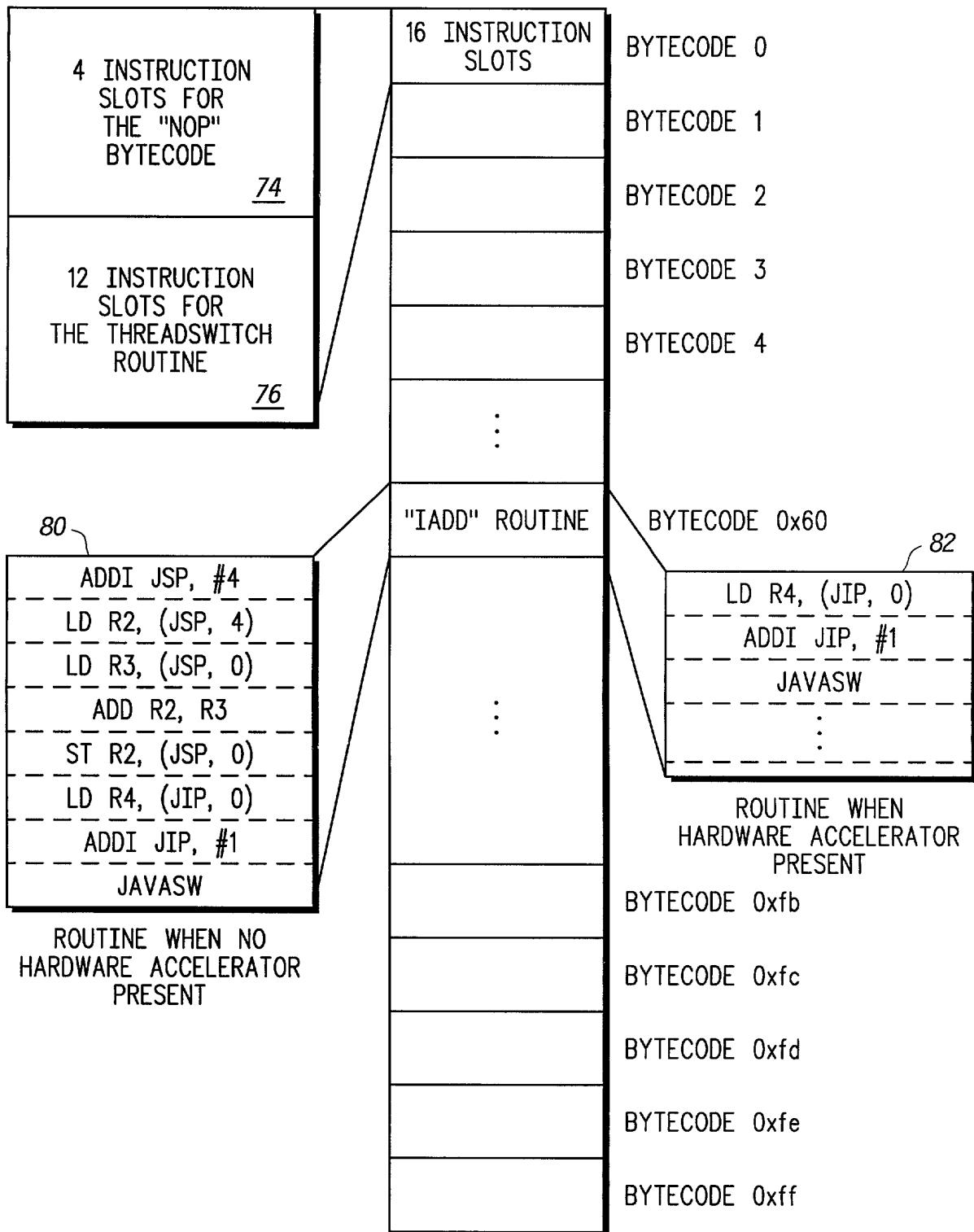


FIG.2
-PRIOR ART-

FIG.3
-PRIOR ART-



EMULATION CODE
TABLE 72



JAVASW

JAVA INTERPRETER SWITCH

OPERATION: JUMP TO BYTECODE EMULATION SEQUENCE;

```
91 ← IF (SWCOUNT!<0)
92 ← PC←[((PC+2) & 0xffffe000) | (R4<<5)];
93 ← ELSE
94 ← PC←[((PC+2) & 0xffffe000) | (0x8)];
95 ← SWCOUNT--;
```

ASSEMBLER

SYNTAX: JAVASW RX

DESCRIPTION: JUMP TO BYTECODE EMULATION SEQUENCE. THE LOW ORDER 13 BITS OF THE VALUE OF PC+2 ARE FORCED TO ZERO, AND BASED ON THE STATE OF THE SWCOUNT (IN REGISTER R12), EITHER A SCALED VALUE IN REGISTER RX IS LOGICALLY "OR'ED", OR A CONSTANT VALUE 0x8 OR'ED, AND INSTRUCTION EXECUTION RESUMES AT THE NEW PC VALUE. THE SWCOUNT REGISTER R12 IS DECREMENTED. NOTE THAT BECAUSE PC+2 IS USED AS THE BASE VALUE, A JAVASW INSTRUCTION SHOULD NOT BE USED IN THE LAST INSTRUCTION OF INSTRUCTION GROUP 255.

CONDITION CODE: INAFFECTED

INSTRUCTION FORMAT:

| 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |

INSTRUCTION FIELDS:

90

JAVA INTERPRETER SWITCH SUPPORT IS PROVIDED BY THE JAVASW INSTRUCTION. THIS INSTRUCTION CAUSES CONTROL FLOW TO BE DIRECTED INTO A TABLE OF INSTRUCTION GROUPS. MOST GROUPS CONSISTS OF 16 INSTRUCTIONS AND CORRESPOND TO A SINGLE JAVA BYTECODE.

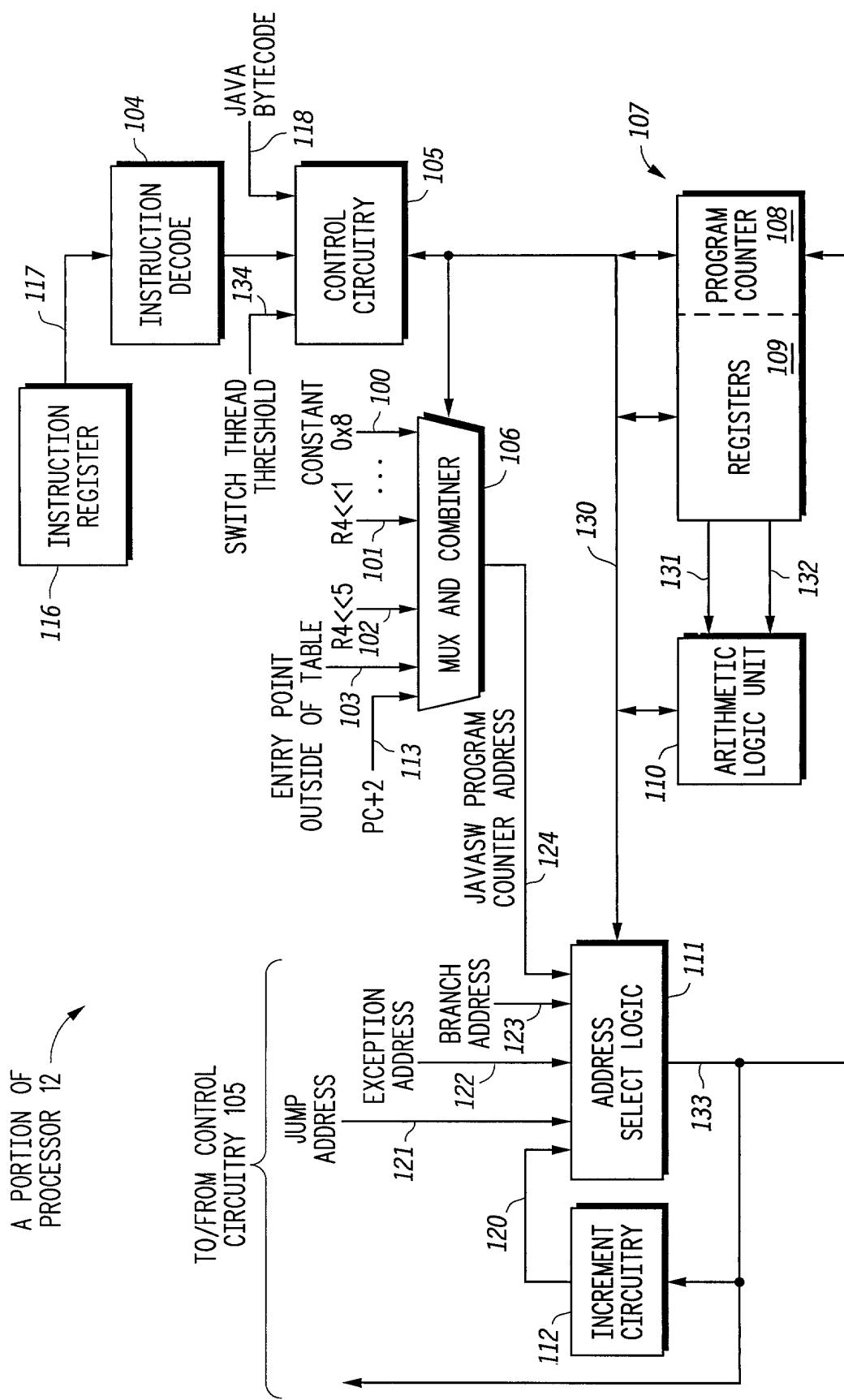


FIG. 8

EMULATION CODE
TABLE 83

